

FIG. 1

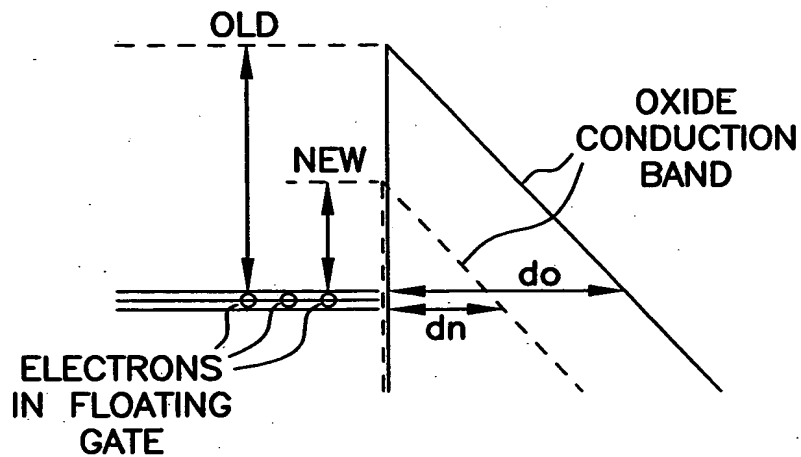


FIG.2

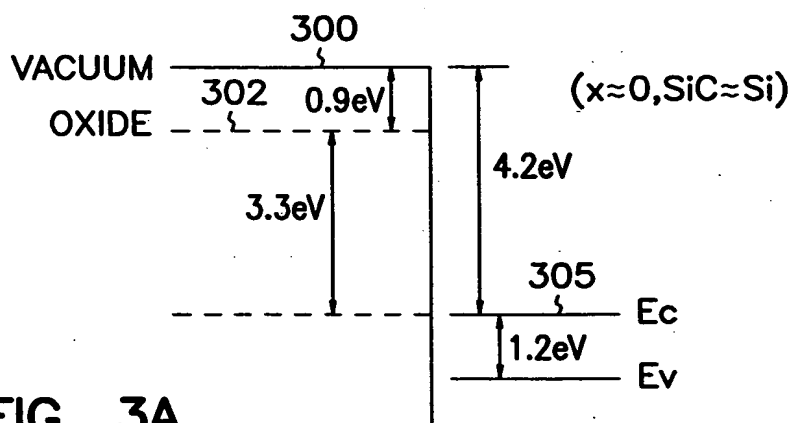


FIG. 3A

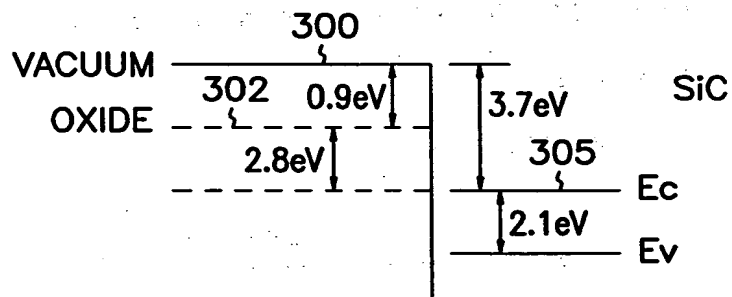


FIG. 3B

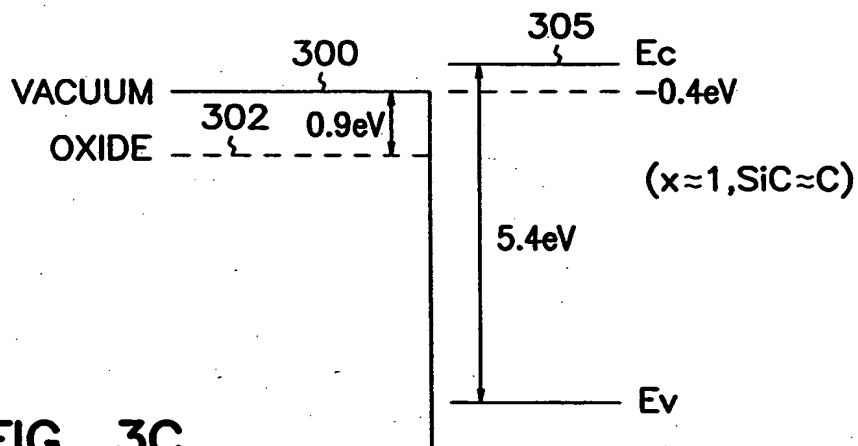


FIG. 3C

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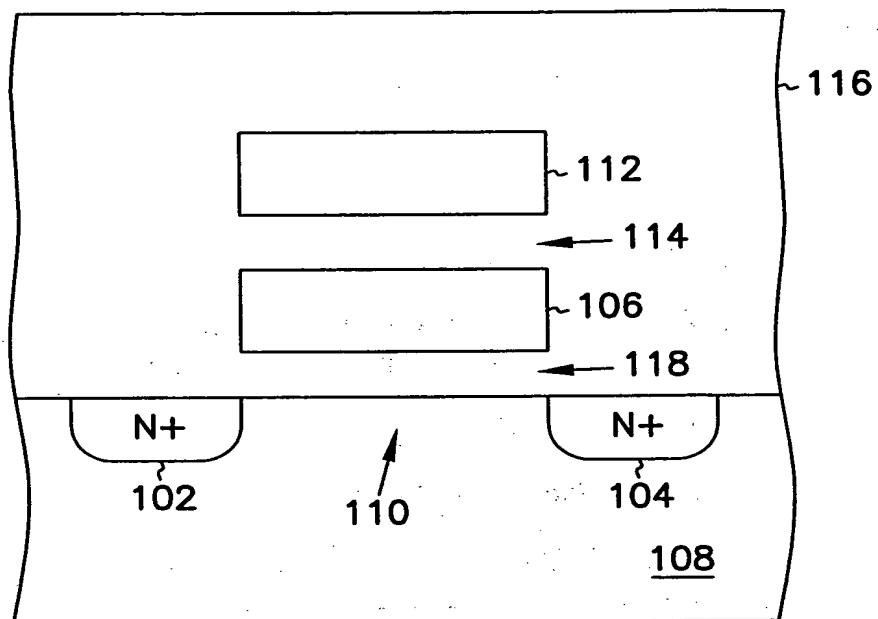


FIG. 4



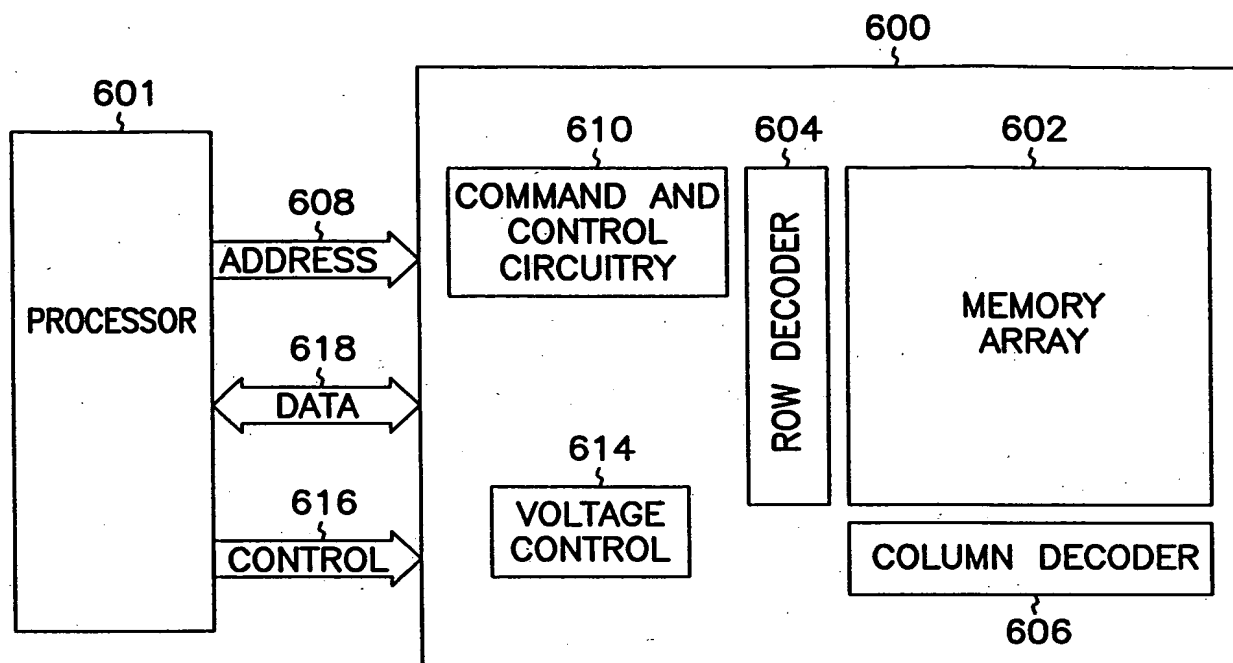


FIG. 6

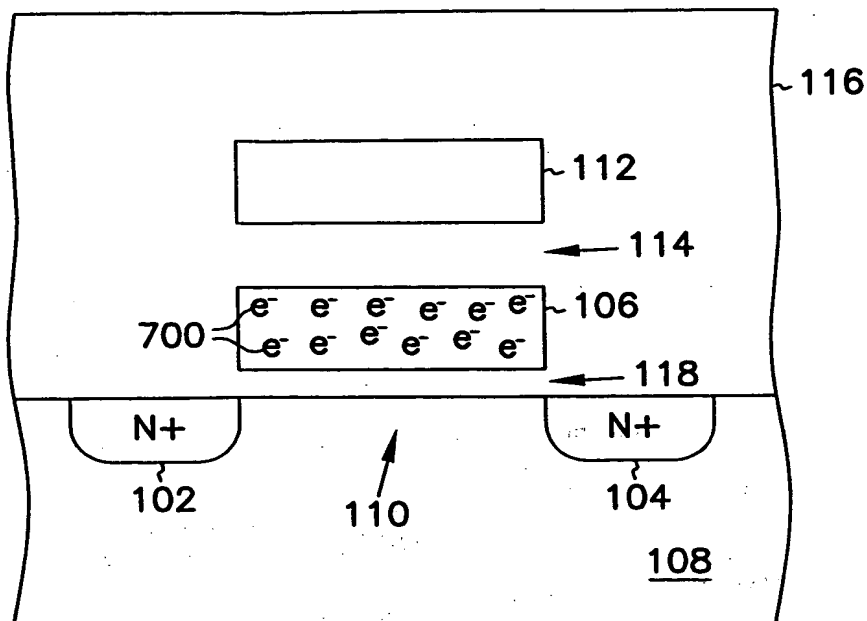


FIG. 7

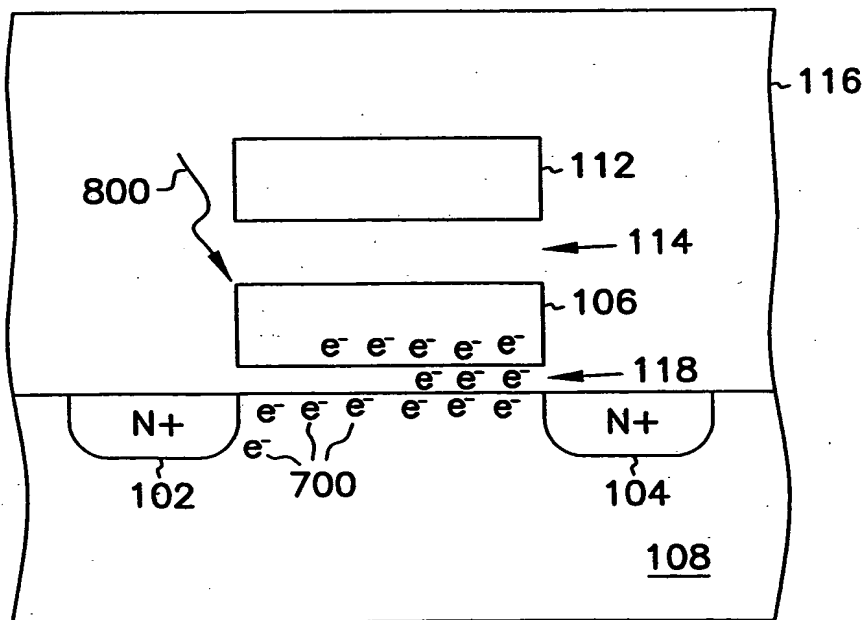


FIG. 8

The graph shows the absorption coefficient (cm<sup>-1</sup>) on a logarithmic y-axis (10<sup>2</sup> to 10<sup>4</sup>) versus wavelength (microns) on the bottom x-axis (0 to 1.2) and photon energy (eV) on the top x-axis (3.0 to 1.0). A vertical dashed line at 0.6 microns (2.0 eV) is labeled '2eV (RED LIGHT)'. Three curves are shown: Si<sub>1-x</sub>C<sub>x</sub> (solid line, leftmost), SiC (solid line, middle), and Si (dotted line, rightmost). The SiC curve is labeled '910' and the Si curve is labeled '912'. The Si<sub>1-x</sub>C<sub>x</sub> curve is labeled '914'.

Material	Wavelength (microns)	Photon Energy (eV)	Absorption Coefficient (cm <sup>-1</sup> )
Si <sub>1-x</sub> C <sub>x</sub>	0.1	3.0	~10 <sup>3</sup>
	0.2	2.5	~10 <sup>2</sup>
SiC	0.3	2.2	~10 <sup>3</sup>
	0.4	2.0	~10 <sup>2</sup>
Si	1.0	1.2	~10 <sup>2</sup>
	1.1	1.1	~10 <sup>2</sup>

FIG. 9

The diagram illustrates the energy levels of a floating gate. A horizontal line represents the 'ELECTRONS IN FLOATING GATE'. Above it, a vertical axis shows energy levels 1005 and 1000. A dashed line labeled 'OLD' indicates a previous state, and a solid line labeled 'NEW' indicates the current state. A diagonal line represents the 'OXIDE CONDUCTION BAND'. Arrows labeled  $d_o$  and  $d_n$  indicate the distance from the floating gate to the conduction band. A label '700' is also present near the floating gate.

The diagram illustrates the energy levels and carrier concentrations in a semiconductor device. The conduction band (Ec) and valence band (Ev) are shown. The oxide conduction band is also indicated. The energy levels are labeled: 1110, 1105, 1100, 1115, 1120, and 1000. The carrier concentrations are labeled: 700, 1000, and 1100. The transitions are labeled: BAND-TO-BAND, dn, and 1115.

FIG. 11



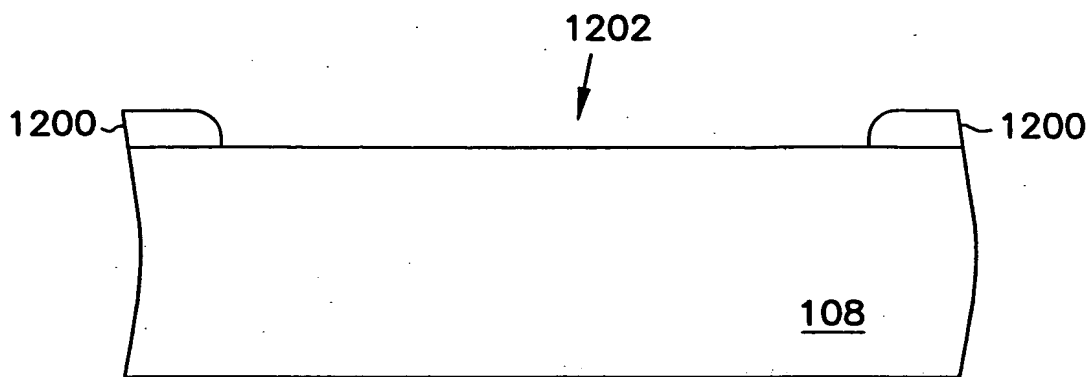


FIG. 12A

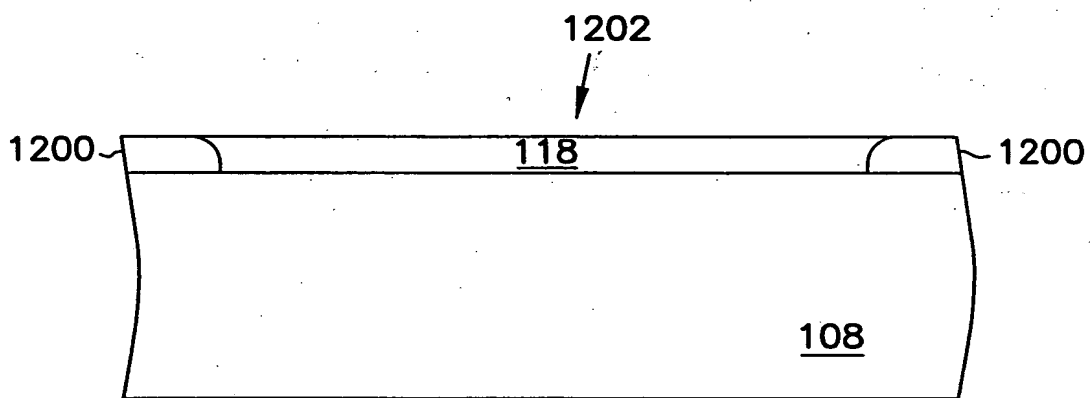


FIG. 12B

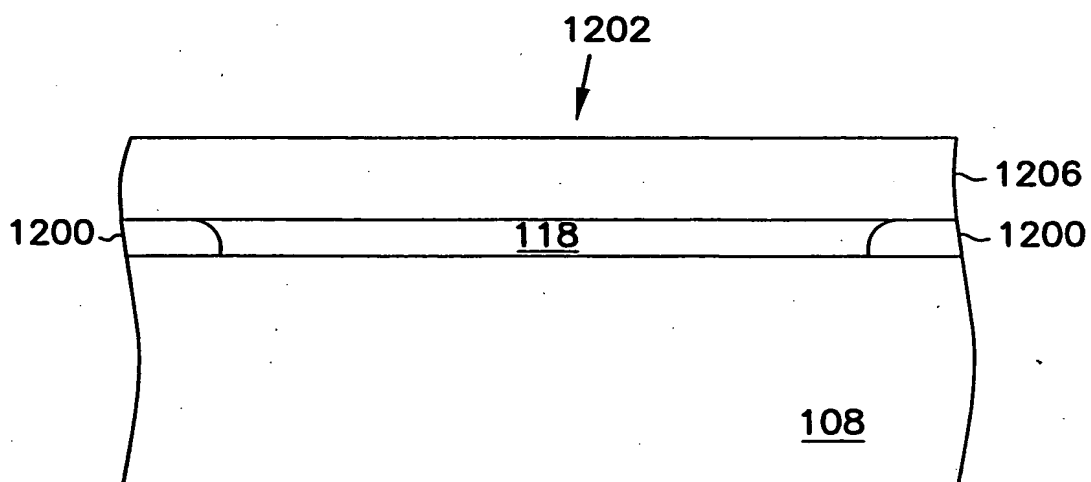


FIG. 12C

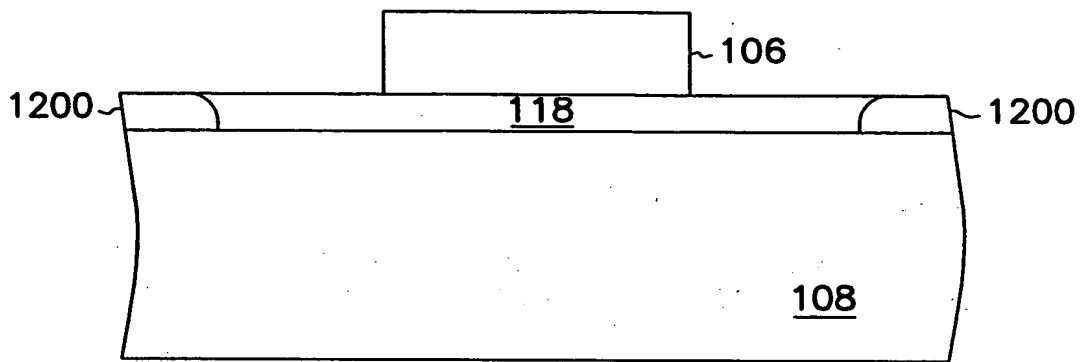


FIG. 12D

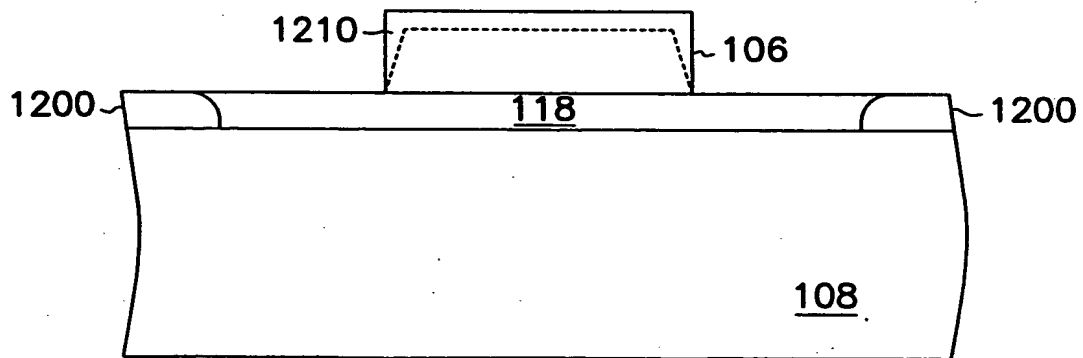


FIG. 12E

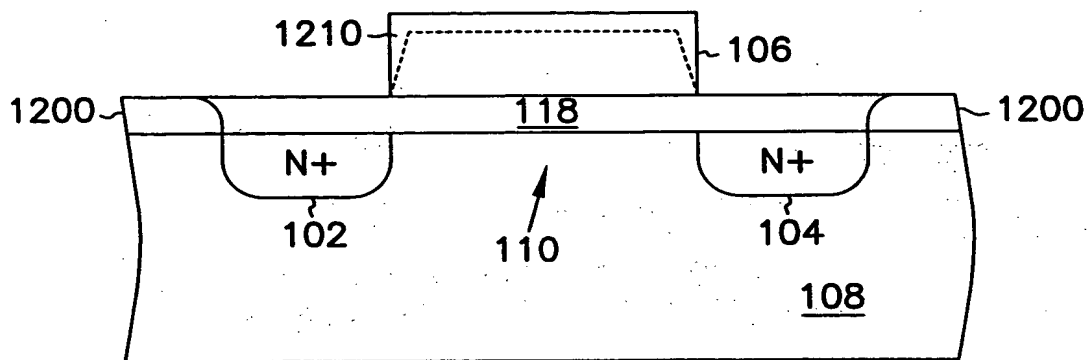


FIG. 12F

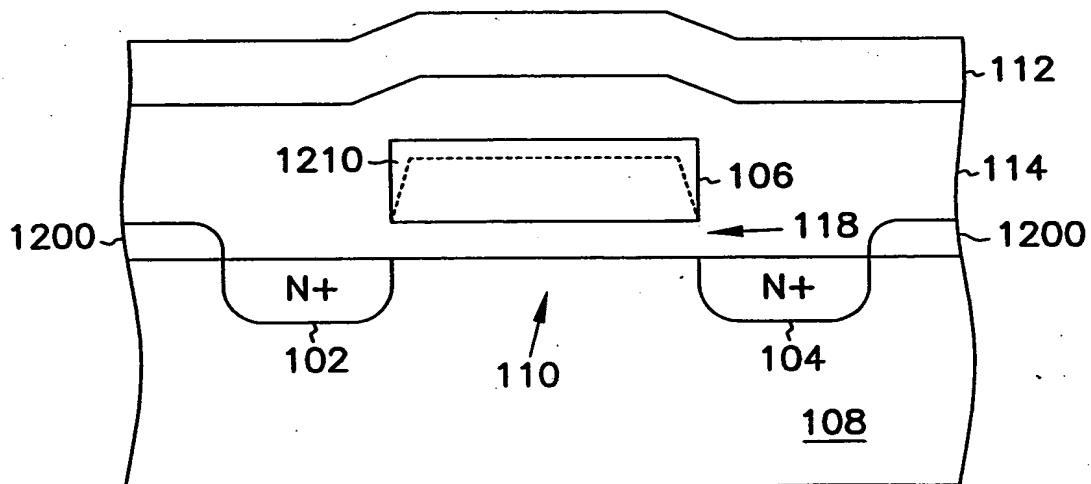


FIG. 12G